

**FAIRCHILD**

A Schlumberger Company

**FDH1000/FDLL1000**High Conductance  
Switching Diodes

T-03-09

- $V_F$ ... 1 V (max) @ 500 mA
- $Q_S$ ... 100 pC (max)

**PACKAGES**FDH1000  
FDLL1000DO-35  
LL-34**ABSOLUTE MAXIMUM RATINGS (Note 1)****Temperatures**

Storage Temperature Range	-65°C to +200°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature	+260°C

**Power Dissipation (Note 2)**

Maximum Total Power Dissipation at 25°C Ambient	500 mW
Linear Power Derating Factor	3.33 mW/°C

**Maximum Voltage and Currents**

WIV	Working Inverse Voltage	50 V
$I_O$	Average Rectified Current	200 mA
$I_F$	Continuous Forward Current	500 mA
$I_f$	Peak Repetitive Forward Current	600 mA
$I_f(\text{surge})$	Peak Forward Surge Current	
	Pulse Width = 1 s	1.0 A
	Pulse Width = 1 $\mu$ s	4.0 A

**ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)**

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
$V_f$	Forward Voltage		1.0	V	$I_F = 500$ mA
$I_R$	Reverse Current		5.0 50 50	$\mu$ A nA $\mu$ A	$V_R = 50$ V $V_R = 20$ V $V_R = 20$ V, $T_A = 125^\circ\text{C}$
BV	Breakdown Voltage	75		V	$I_R = 100$ $\mu$ A
C	Capacitance		5.0	pF	$V_R = 0$ , $f = 1.0$ MHz
$Q_S$	Stored Charge		100	pC	$I_F = 10$ mA, $V_R = 10$ V

**NOTES:**

- Maximum ratings are limiting values above which life or satisfactory performance may be impaired.
- These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
- For family characteristic curves, refer to Chapter 4, D4.